

Wake Forest Community Plan

# Growth Factors Analysis

*Population, Housing and Economic Analysis*

Wake Forest, NC and Glenn Harbeck Associates, Inc  
September 2007

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## Wake Forest Community Plan

This Growth Factors Analysis includes statistical measures concerning Wake Forest's population, housing, and local economy. The purpose of the Growth Factors Analysis is to provide a factual basis for understanding primarily the demographic and economic context for growth and development in Wake Forest.

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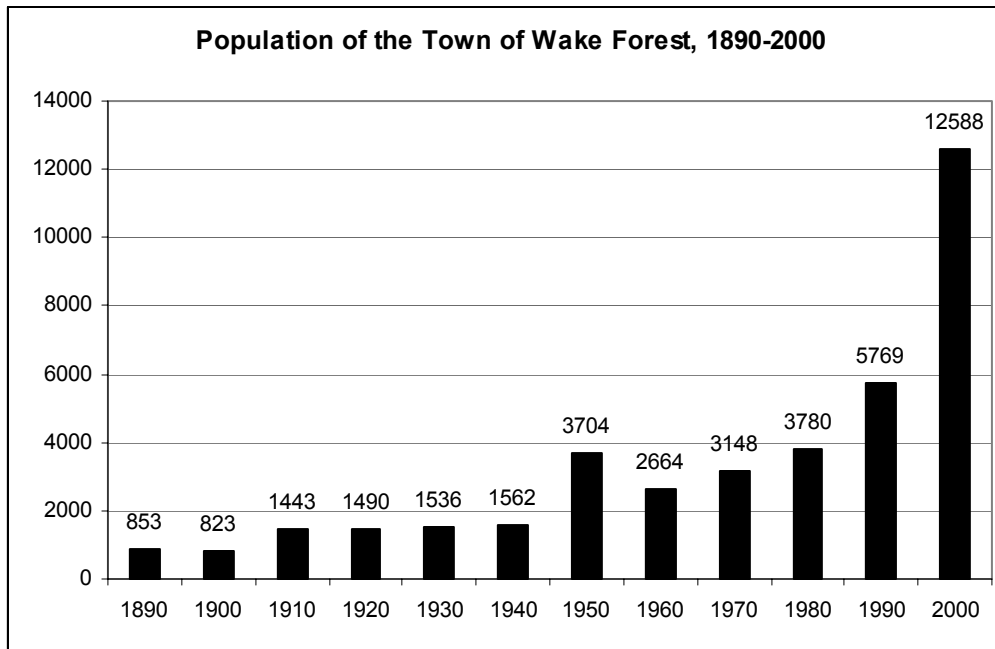
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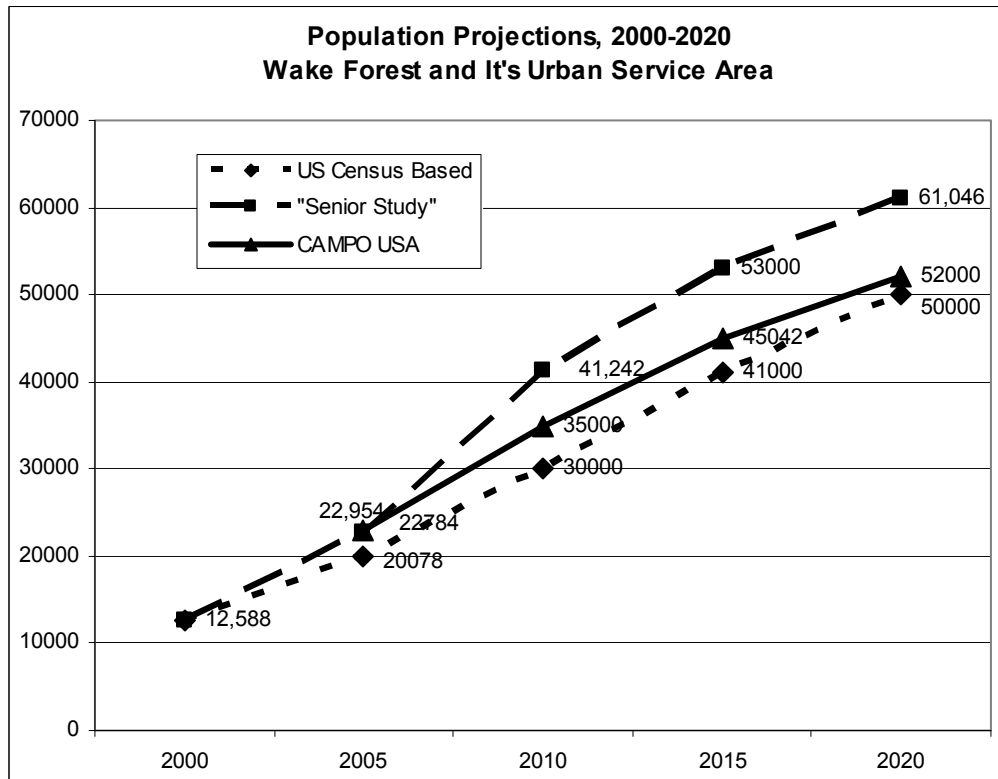


## Measures of Population Change and Composition



### Historic Population Growth, Town of Wake Forest, 1890-2000

Wake Forest experienced very little population change from the late 1800's until after World War II. Growth surged briefly in the decade after the war, then took a sudden drop with the departure of Wake Forest University to Winston Salem in 1956. Beginning in 1960, the Town has experienced exponential growth, corresponding to the dynamic growth of Wake County and its position as part of the Research Triangle of North Carolina.

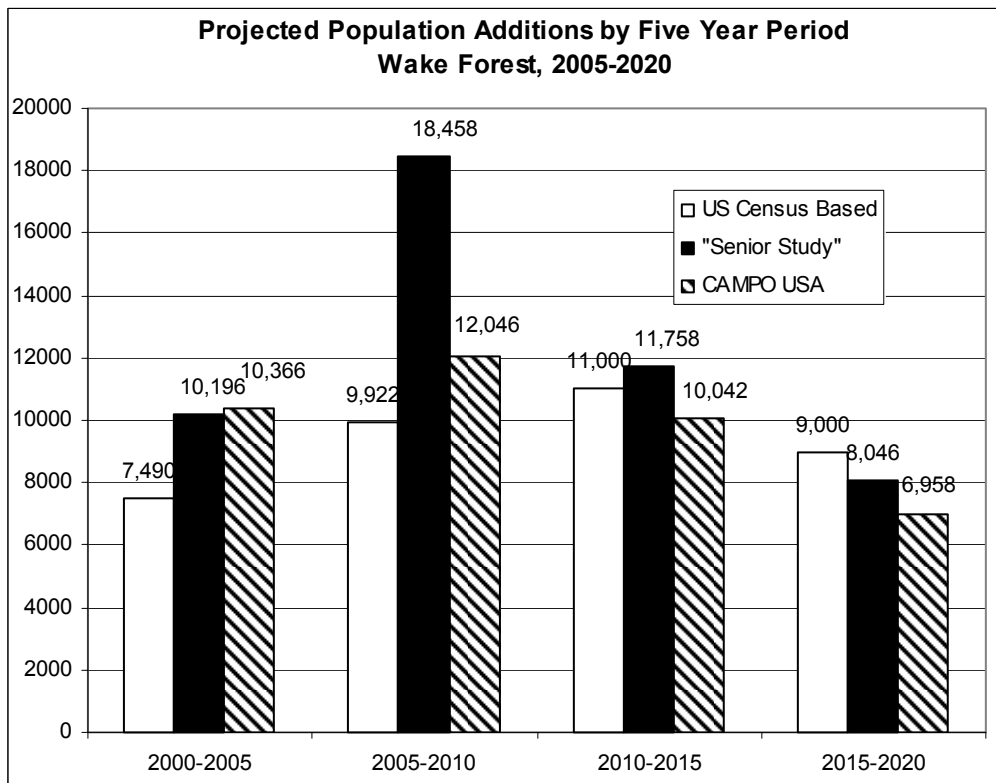


### Population Projections, Town of Wake Forest and its Urban Service Area, 2000-2020

The chart to the left shows three alternative population growth projections for Wake Forest. The dashed trend line at the top comes from a *Senior Center Expansion Study*, dated August 2007. Figures in the report were derived from

town population projections "presented to the County Board of Commissioners in January 2006". The middle, solid line was derived from projections produced for the Wake Forest Urban Services Area (USA) by the Capital Area Metropolitan Planning Organization (CAMPO). The bottom dotted line is based upon US Census Bureau population estimates through 2006 and projected forward on a conservative trend line. All three projections suggest a classic "sigmoid or S growth curve" typified by early rapid growth and then leveling off as the percentage rate of growth becomes difficult to sustain. Regardless of which trend line the Town chooses to accept, all projections forecast very substantial population increases.

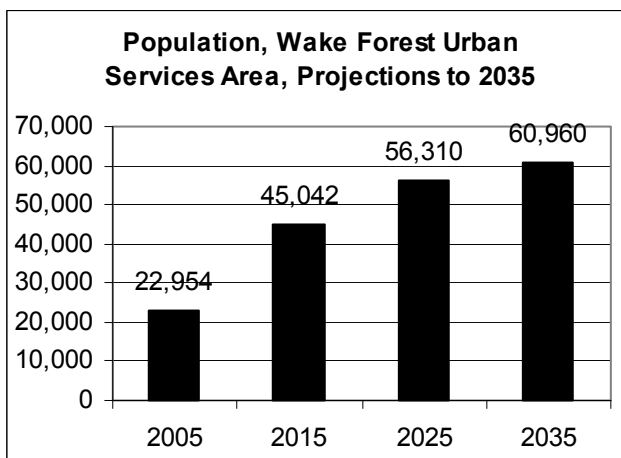
Source: US Census, Capital Area Metropolitan Planning Org., Senior Center Expansion Study, 2007 & Glenn Harbeck Associates, Inc.



Source: US Census, Capital Area Metropolitan Planning Org, Senior Center Expansion Study, 2007 & Glenn Harbeck Associates, Inc.

#### **Projected Population Additions by Five Year Period, Town of Wake Forest, 2005-2020**

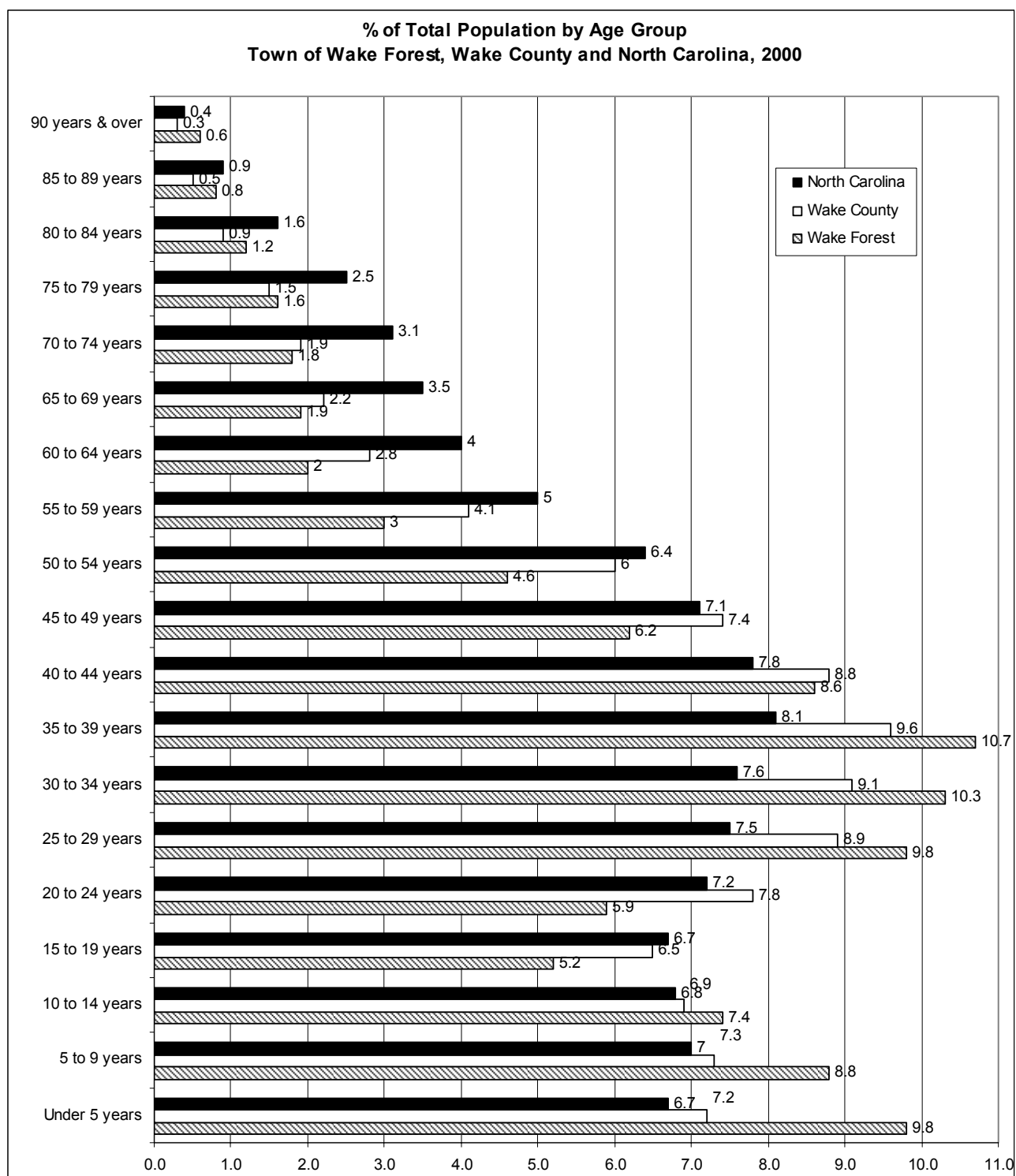
The bar chart above shows the actual number of new residents that the Town might expect to receive by five year increments through the year 2020. The more aggressive growth curve referred to in the Senior Center Expansion Study is made evident during the period from 2005 to 2010, in which some 18,000 new residents are forecast. Other than that single five year period, all three projections are roughly comparable.



#### **Population Projections Beyond 2020, Town of Wake Forest Urban Services Area**

CAMPO has also developed population projections for the Urban Services Area of Wake Forest through 2035. Comparing the bar chart to the left to the line chart on the previous page, one can see that the "Senior Study" projections call for a total population of about 60,000 by 2020, while CAMPO projections forecast that the Town will not reach that population level until fifteen years later in 2035.

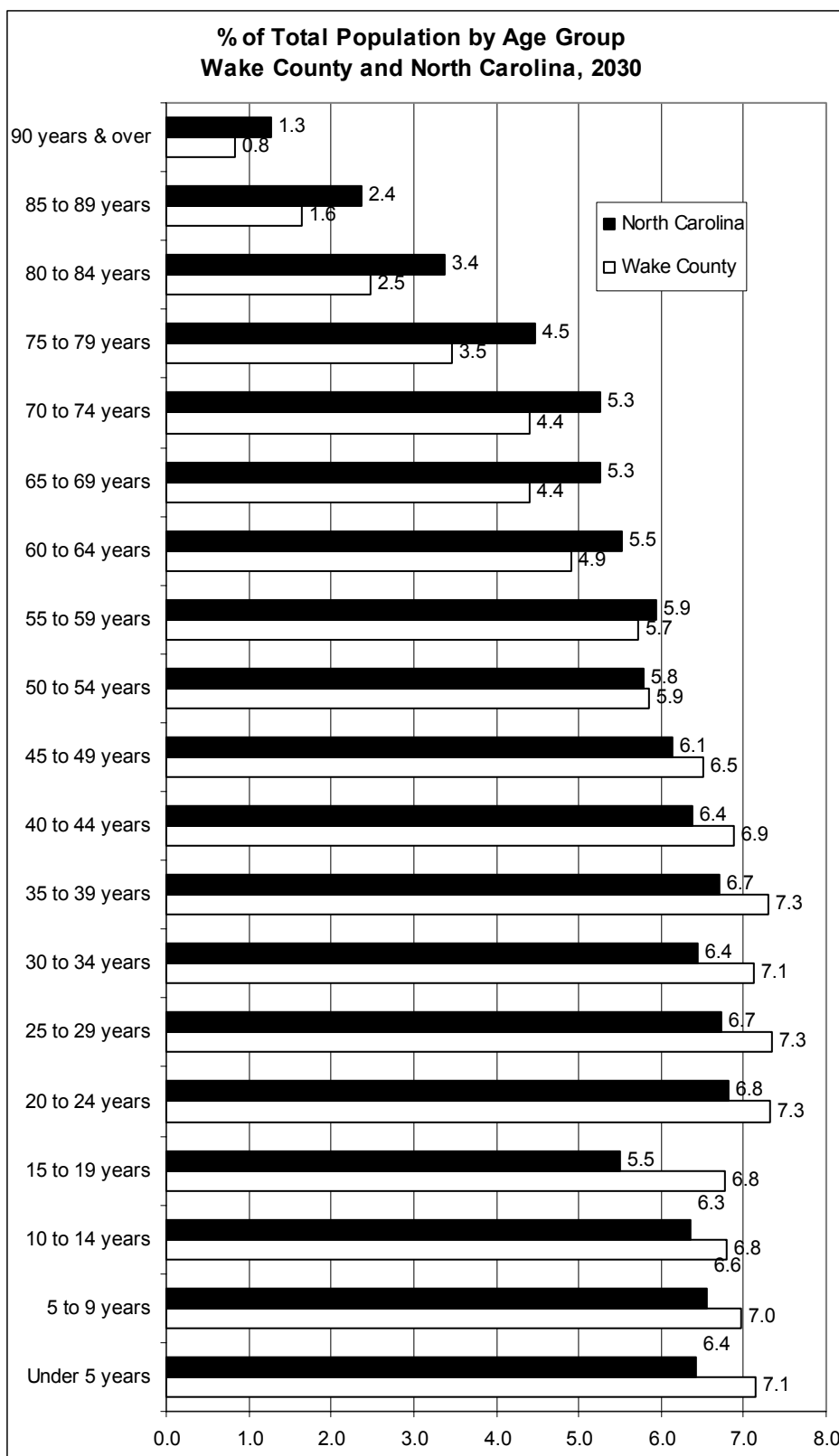
Source: Capital Area Metropolitan Planning Org



Source: North Carolina State Data Center, US Census

### Age Composition of Wake Forest, Wake County and North Carolina, 2000-2030

The chart above and on the following page illustrate the profound changes expected in the age composition of the town, county and state by the year 2030. Both charts have combined male and female populations into unified age cohorts to simplify the presentation of data. *While age-specific projections are not available at the municipal level, conclusions about the age make up of the Town's future population may be extrapolated from data available at the County level in 2030.*



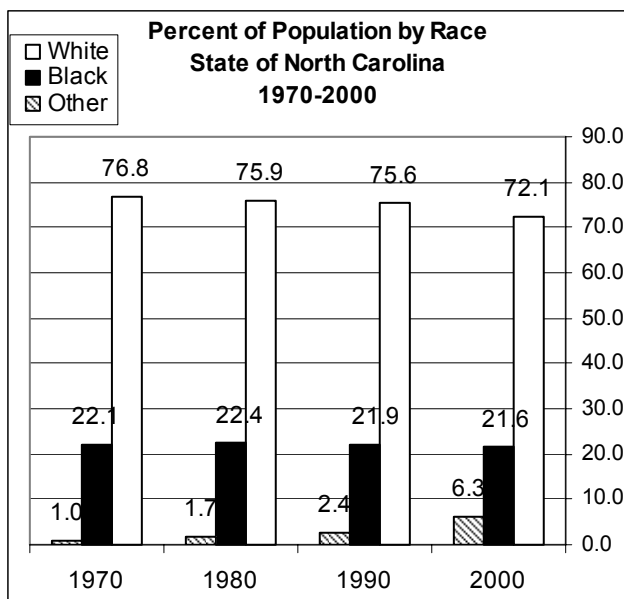
### ***The Year 2000 Chart (preceding page)***

- The large post-World War II baby boom generation is clearly evident in the 35 to 54 year old age cohorts for the state.
- Wake Forest and Wake County have an especially large proportion of young to middle age workers. (25-44)
- There are far fewer elderly relative to the baby boomers. The age groups from 65 and older constitute only about 10% of the total.
- There are also fewer youth coming up behind the baby boomers, representing only about 35% of the total.

### ***The 2030 Chart (this page)***

- The elderly ranks (65+) will swell to about 20% of the total statewide. The very oldest age cohorts should be slightly smaller in Wake Forest.
- The 25-54 age cohorts (prime working age) will represent less than 40% of the total in 2030. This cohort should be slightly larger in the Town of Wake Forest.
- The youngest age groups (<24 years old) will constitute only about 30% of the total.
- Thus, these two charts show that over the next 25 years, Wake Forest, Wake County and North Carolina will be moving away from a youth and middle-aged culture to a culture with relatively equal numbers of youth, middle-aged and elderly populations. There will be many fewer working age adults in 2030 than in 2000 relative to the total population.

Source: North Carolina State Data Center, US Census

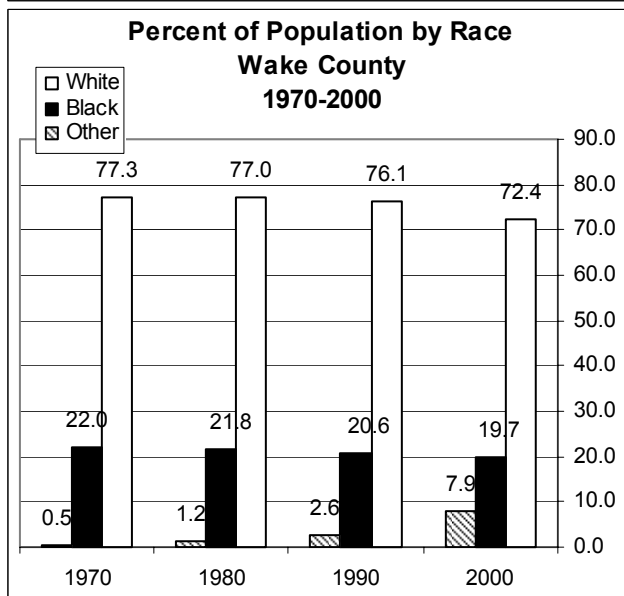


### Racial Composition of Wake Forest, Wake County and North Carolina, 2000-2030

The three charts on this page compare the racial composition of the state, county and town from 1970 to 2000. Observations are as follows:

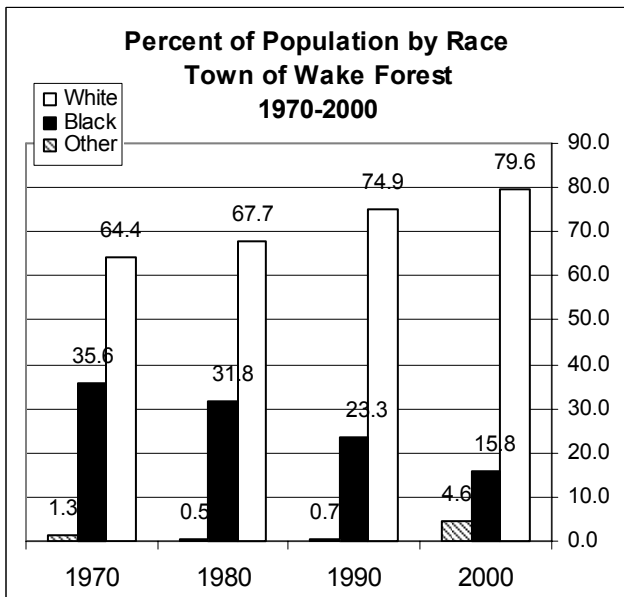
#### State of North Carolina and Wake County

- The State of North Carolina and Wake County have exhibited a declining White population as a percentage of the total since 1970.
- The Black population at the State and County level has also declined as a percentage of the total, though not as significantly as the White population.
- Biggest gains at the State and County levels have been in the "Other" category, presumably largely composed of Latino populations.



#### Town of Wake Forest

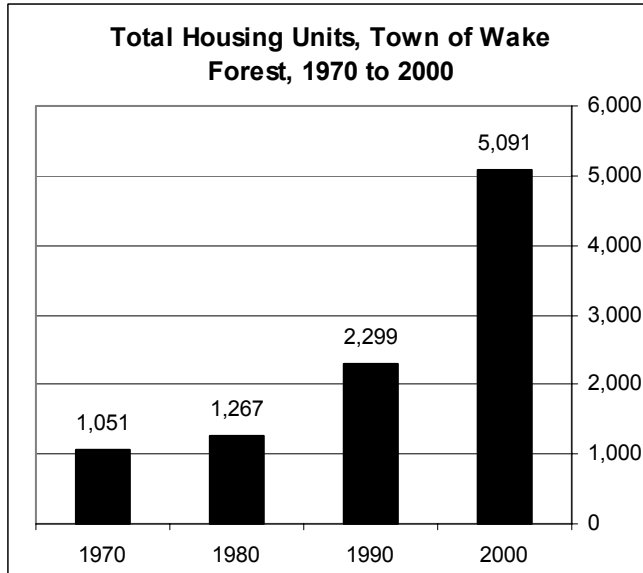
- The Town of Wake Forest has bucked State and County trends concerning racial composition of its population. Growth and expansion of the town limits into newly constructed suburban developments has no doubt been the most significant factor in changing the racial make up of Wake Forest.
- The percentage of the total population in Wake Forest that is White increased significantly during the 1980's and 1990's. In 1980 two of every three residents were White. By 1990, it was three out of four and by 2000 four out of every five Wake Forest residents were White.
- At the same time, the Black population of the Town has dropped from one of every three residents in 1970 to less than one in six in 2000.
- The "Other" category was basically non-existent until the 1990's, when a surge of non-White and non-Black residents brought this category up to about 5% of the total.



Source: North Carolina State Data Center, US Census

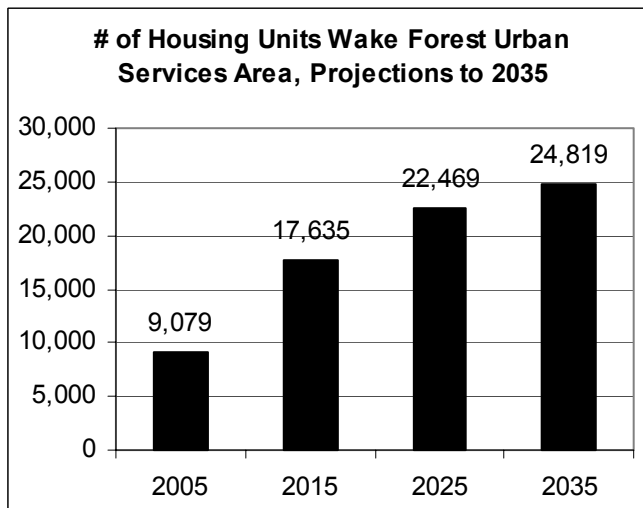
## Measures of Housing Change, Type, Tenure, Cost and Condition

The US Census Bureau defines a *housing unit* as a house, apartment, mobile home or trailer, group of rooms, or single room, occupied or intended for occupancy as a separate living quarter. Both occupied and vacant housing units are included in the housing unit inventory, except that recreational vehicles, boats, tents, etc. are included only if they are occupied as someone's usual place of residence.



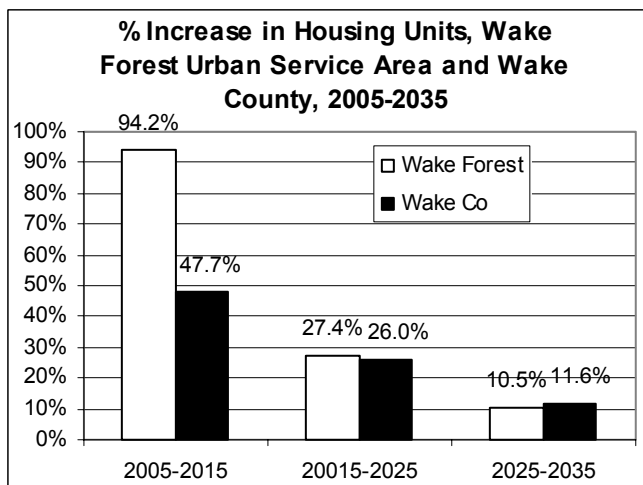
### Total Housing Units, 1970 to 2000

The total number of housing units in the Town of Wake Forest increased nearly five fold from 1970 to 2000. The growth has taken on the form of an exponential growth curve, meaning that the number of housing units have been increasing at an accelerating rate.



### Projected Housing Units, 2005 to 2035 Town of Wake Forest Urban Services Area

Based upon the most recent population estimates and projections for the Town (see the population section of this analysis), a continued rapid expansion of the town's housing inventory is expected to continue for the next several decades.

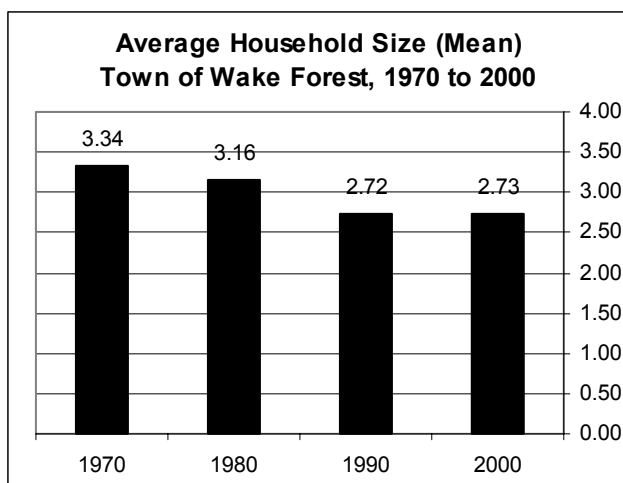


### Percent Increase in Housing Units 2005 to 2035, Wake County and

### Town of Wake Forest Urban Services Area

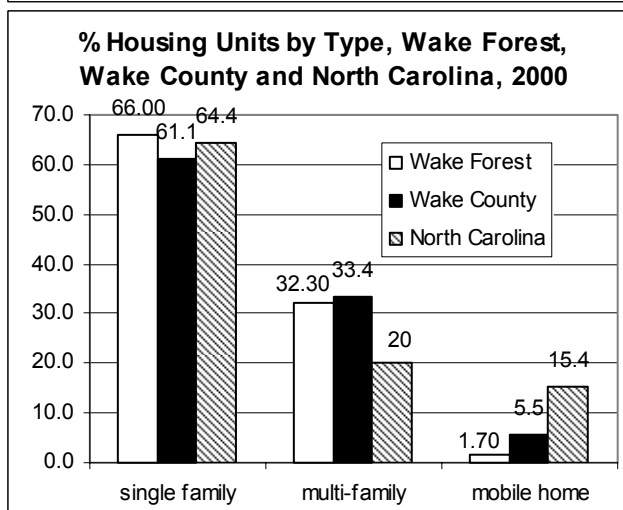
Projections prepared by the Capital Area Metropolitan Planning Agency (CAMPO) call for large additions to the housing stock of both Wake County and Wake Forest, particularly during the period from 2005 to 2015. The total number of housing units in the Wake Forest Urban Services Area is forecast to nearly double during this first ten year period. Wake County housing units will increase by about 50%.

Source: North Carolina State Data Center, US Census



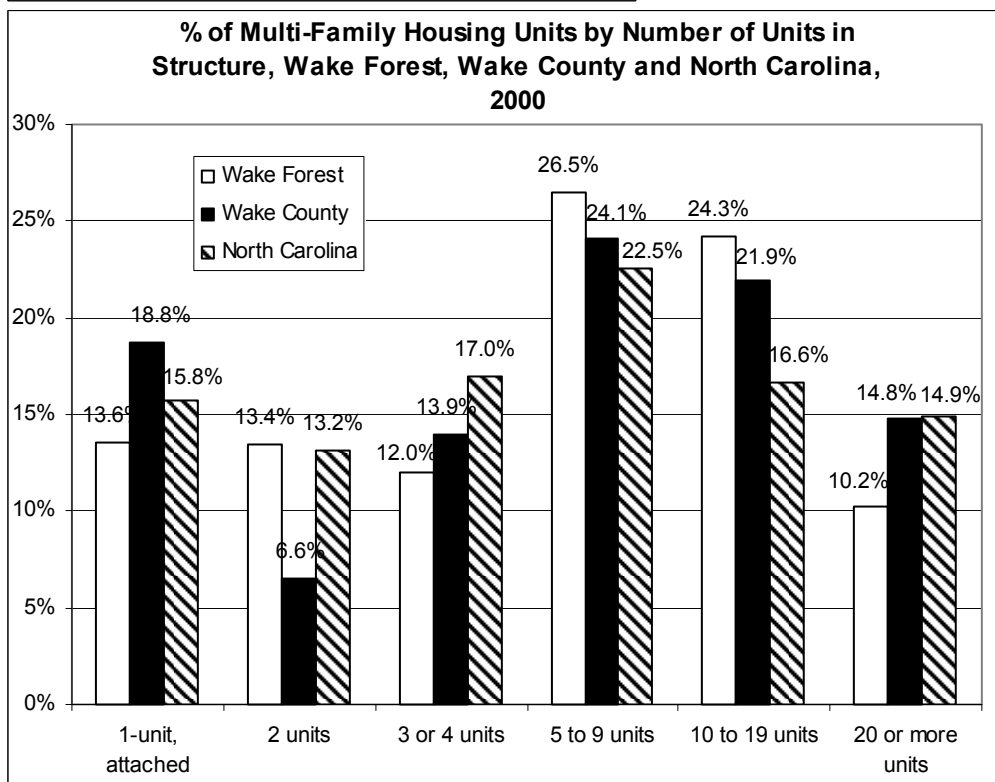
### Average Household Size, 1970 to 2000

For the purpose of this analysis, average household size was determined by dividing the total number of *occupied housing units* by the *total population* of the town. This number does not address the population of Wake Forest living in group quarters; therefore, these numbers may be considered slightly higher than what might be found through a house to house canvassing. Even so, the general direction and magnitude of change is evident. Average household size declined steadily during the 1970' and 80's, then leveled off during the 1990's.



### Housing Units by Type, Town, County and State, 2000

Single family homes make up over 60 percent of the total housing stock in all three areas being studied; about two-thirds of all housing units in the Town of Wake Forest are single family homes. About a third of the housing stock in Wake Forest and Wake County are multi-family housing units. Wake Forest has far fewer mobile homes than the County or the State as a proportion of the total. Mobile homes make up about 15% of all homes in the State of North Carolina are, but only about 2% of those in Wake Forest.

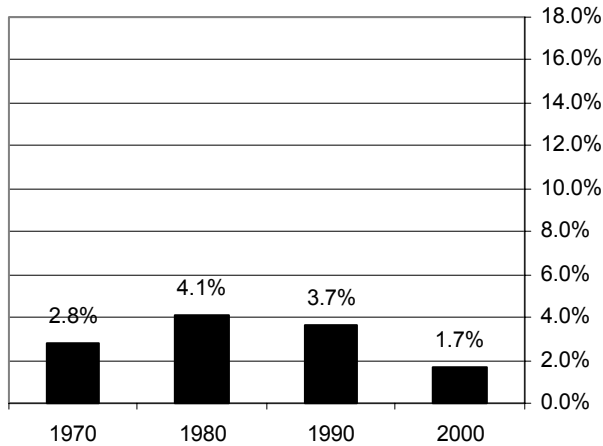


### Percent of Multi-Family Housing Units by Number of Units in Structure, 2000

In 2000, Wake Forest had fewer of its multi-family units in larger complexes (>20 units per structure) than either the County or the State. The Town also had fewer townhomes (1-unit attached), triplexes and quads. The Town had twice as many duplexes, proportionately, than Wake County.

Source: North Carolina State Data Center, US Census

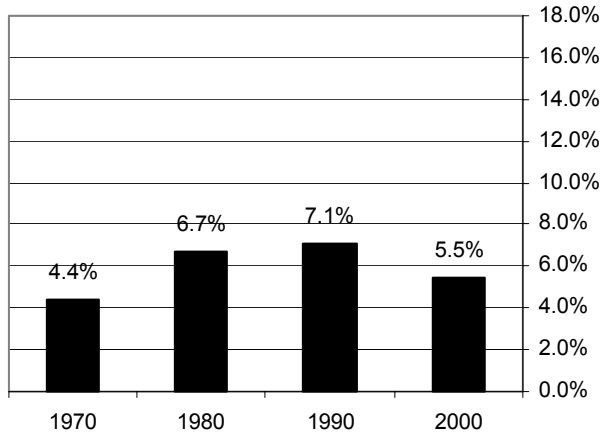
**Mobile Homes as a Percentage of the Total, Wake Forest, 1970 to 2000**



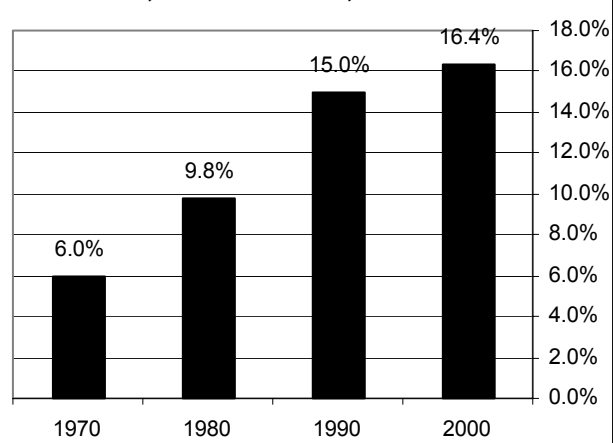
**Mobile Homes as a Percentage of the Total, Town, County and State, 1970-2000**

The three charts on this page show changes in the percentage of mobile homes in all three areas over the last three decades. Striking differences between the three areas can be noted. As Wake County and Wake Forest have become more urbanized and, as land values have increased, mobile home placements have declined accordingly. At the time of the 2000 US Census, only 1.7% of Wake Forest's housing stock was in mobile homes, down from over 4% in 1980. In contrast, demand for affordable housing has increased statewide, resulting in ever higher percentages of the state's housing stock in mobile homes.

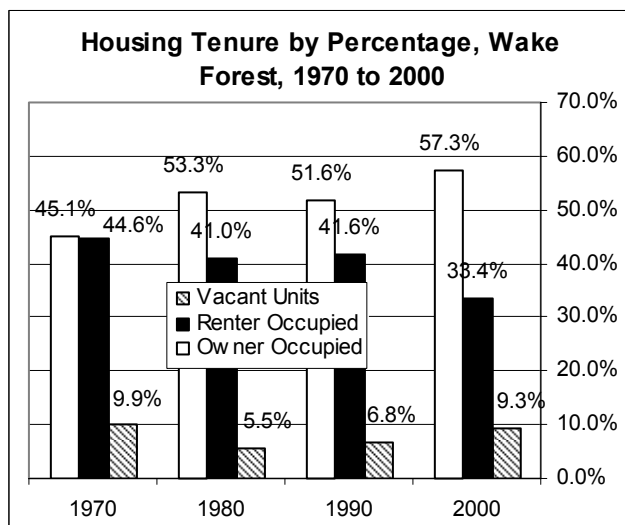
**Mobile Homes as a Percentage of the Total, Wake County, 1970 to 2000**



**Mobile Homes As a Percentage of the Total, North Carolina, 1970 to 2000**



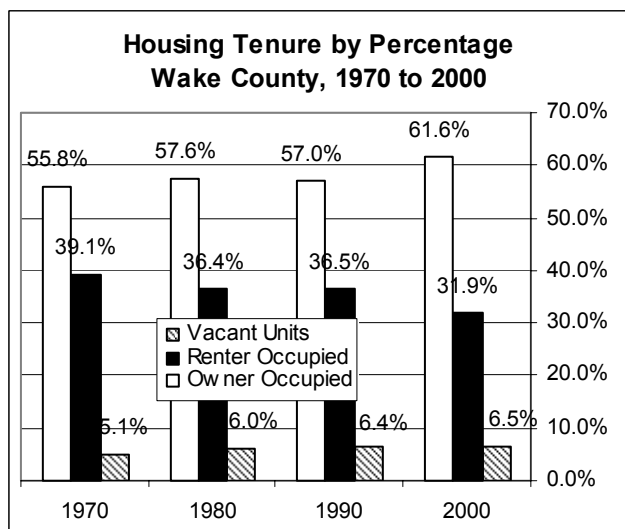
Source: North Carolina State Data Center, US Census



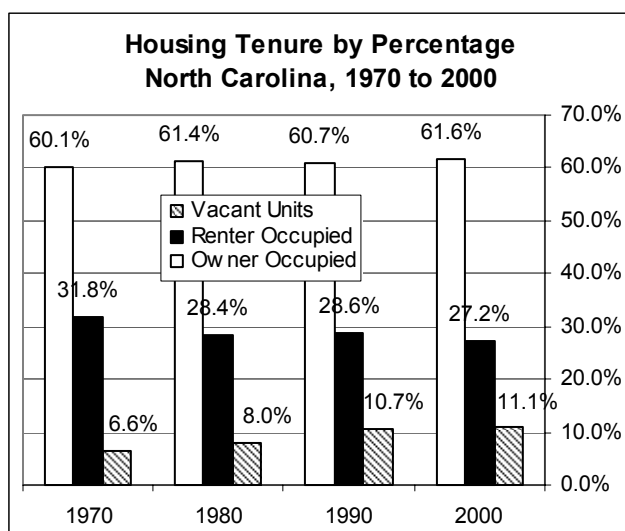
**Housing Tenure as a Percentage of the Total, Town, County and State, 1970-2000**

Home ownership rates have been on the rise in Wake Forest, though they still remain below State and County levels. In 1970, the number of owner and renter occupied housing units in the town were about equal, at 45% of the total. At the same time, about 60% of all housing statewide was in single family homes in 1970. While statewide home ownership rates remained flat from 1970 to 2000, Wake Forest Ownership levels increased to over 57%.

The percentage of rental occupied units declined in all three areas being studied during the last three decades of the 20<sup>th</sup> Century. Rental units as a percentage of the total declined most rapidly in Wake Forest.

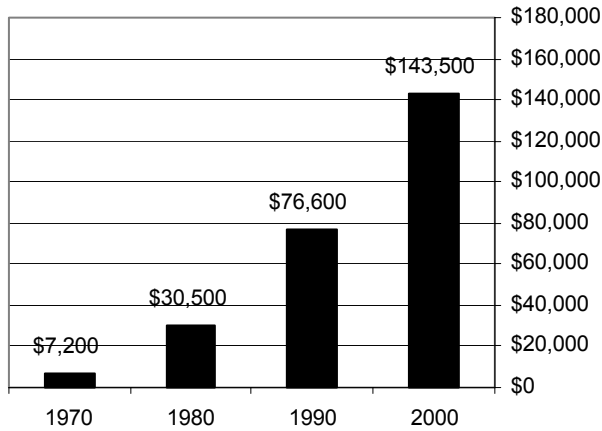


Vacancy rates showed slow but steady increases in Wake County and the State as a whole, while moving up and down in Wake Forest, with no clear pattern or trend. Most of the time, Wake Forest vacancy rates were generally higher than those of the county, but have stayed below statewide averages for the past three decennial censuses.



Source: North Carolina State Data Center, US Census

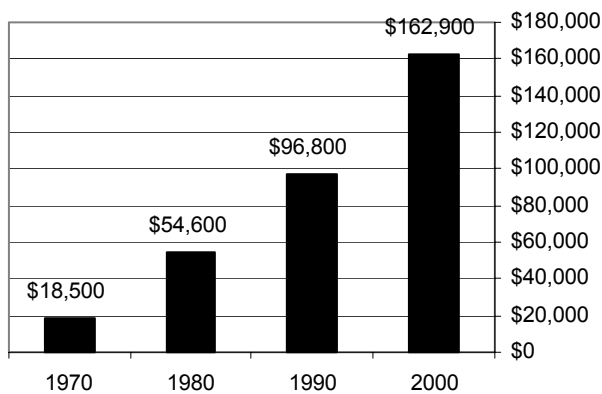
**Median Value, Owner-Occupied Housing, Wake Forest, 1970 to 2000**



**Median Value, Owner Occupied Housing 1970 to 2000**

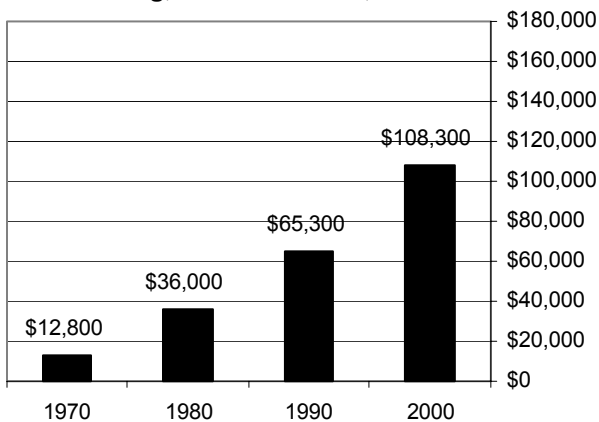
As the three charts on this page show, the average home value in the Town of Wake Forest has been rising faster than in the County and State for at least the past 30 years. In 1970, the average home in Wake Forest was worth between 50 and 60% of the statewide average and less than 40% of the county-wide average. By 1980, Wake Forest home values had risen to between 80 and 90% of those across the state and about 55% of the county average. At the time of the 1990 Census, Wake Forest home values had surpassed statewide averages, and were nearly 80% of county averages. By 2000, homes in town were worth 130% of the state average and were approaching 90% of the county average.

**Median Value, Owner-Occupied Housing, Wake County, 1970 to 2000**

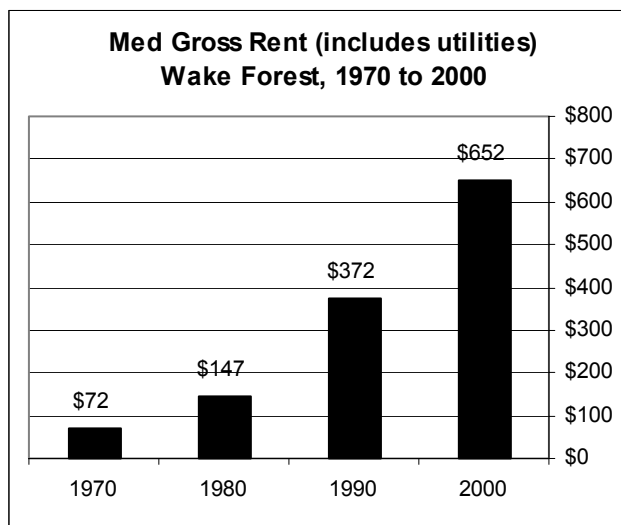


Given the rapidly increasing average value of homes in Wake Forest, it is apparent that the town has become increasingly attractive as a place in which to live and invest. If present trends continue, the average home value in the Town of Wake Forest will be close to or above the county average by the time of the 2010 US Census.

**Median Value, Owner-Occupied Housing, North Carolina, 1970 to 2000**

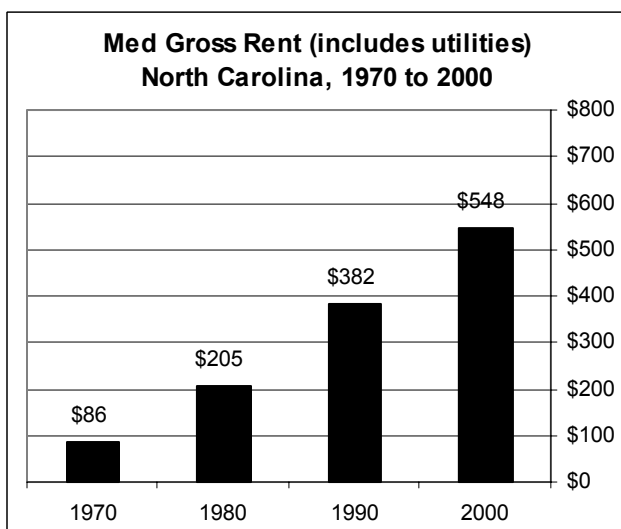
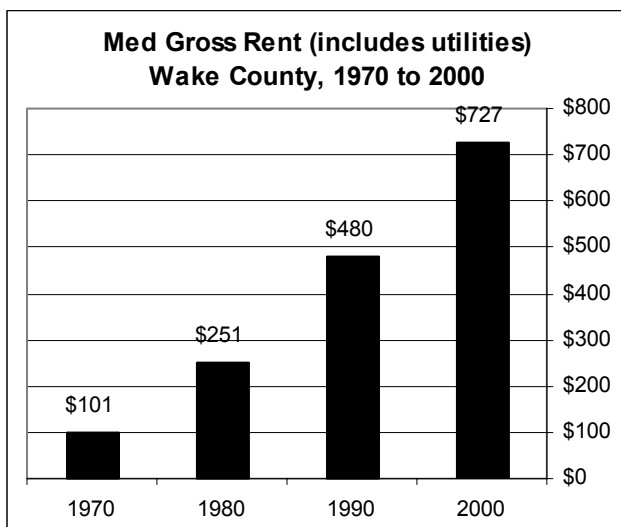


Source: North Carolina State Data Center, US Census



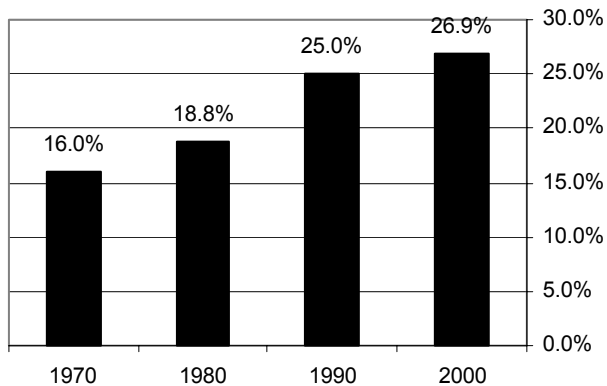
**Median Gross Rent, Wake Forest, Wake County and North Carolina, 1970-2000**

Increases in rent levels in the Town of Wake Forest have followed a pattern similar to that of average home values. In 1970, the average rent in Wake Forest was a little over 80% of the State average and about 70% of the County-wide average. By 2000, the average rental unit in Wake Forest brought in nearly 120% of the statewide average and 90% of the county average. If these trends continue, the average rental income of rental units in Wake Forest should be at or above county-wide averages by the time of the 2010 US Census.



Source: North Carolina State Data Center, US Census

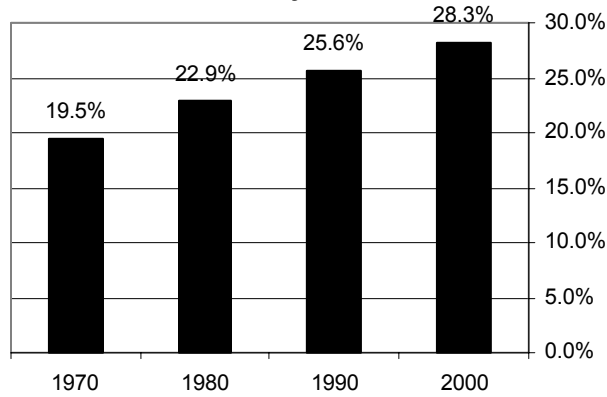
**High Rent Ratio Housing as a Percentage of the Total  
Wake Forest 1970 to 2000**



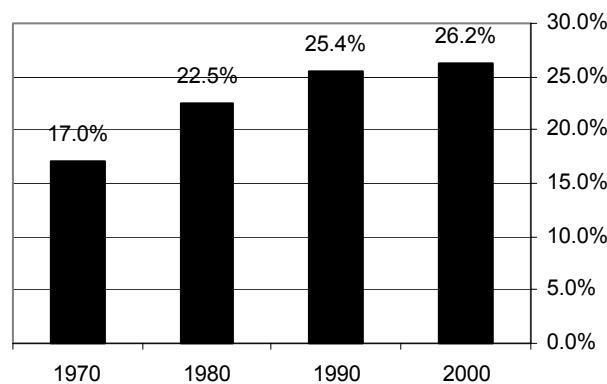
**High Rent Ratio Housing as a Percentage of the Total, Wake Forest, Wake County and North Carolina, 1970-2000**

In conducting each decennial census, the US Census Bureau compares each respondent's household income against the same household's gross median rent to determine the number of housing units in a locality that meet the definition of a *high rent ratio unit*. Interestingly, none of the three areas being studied had significantly higher percentages of high rent ratio housing than the others. All three showed steady increases in the proportion of high rent ratio housing from one decade to the next. Generally speaking, these numbers indicate that housing is becoming less affordable both locally and statewide.

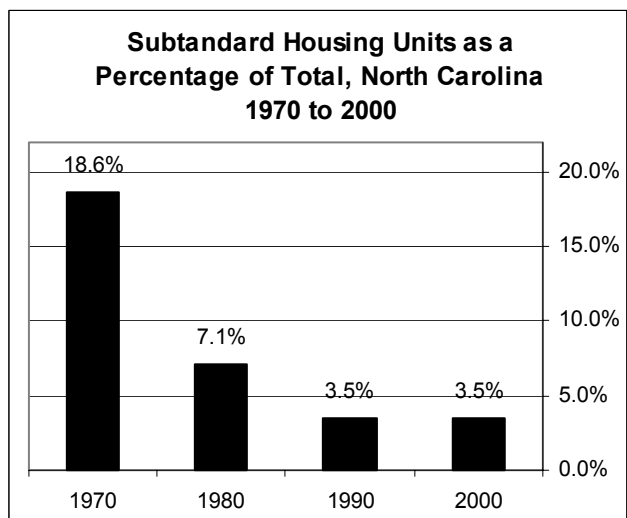
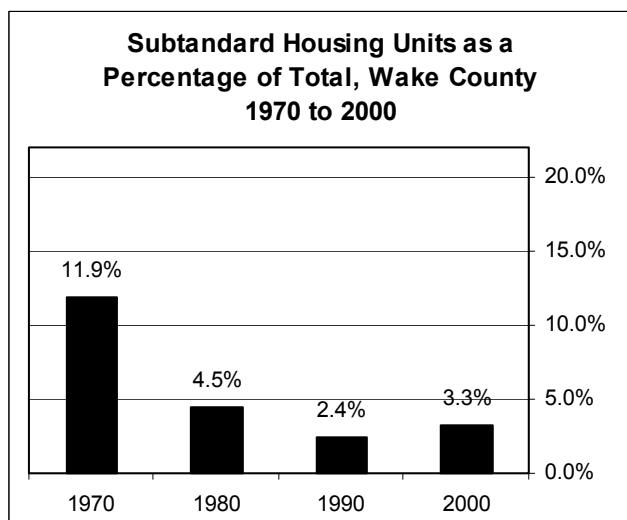
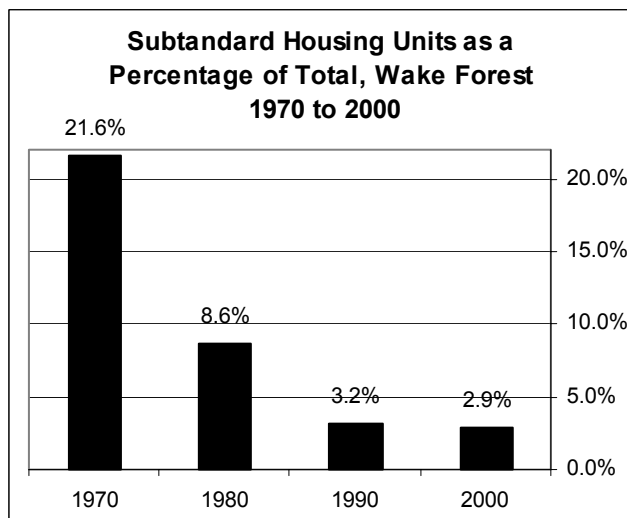
**High Rent Ratio Housing as a Percentage of the Total  
Wake County 1970 to 2000**



**High Rent Ratio Housing as a Percentage of the Total  
North Carolina 1970 to 2000**



Source: North Carolina State Data Center  
U.S. Census Bureau



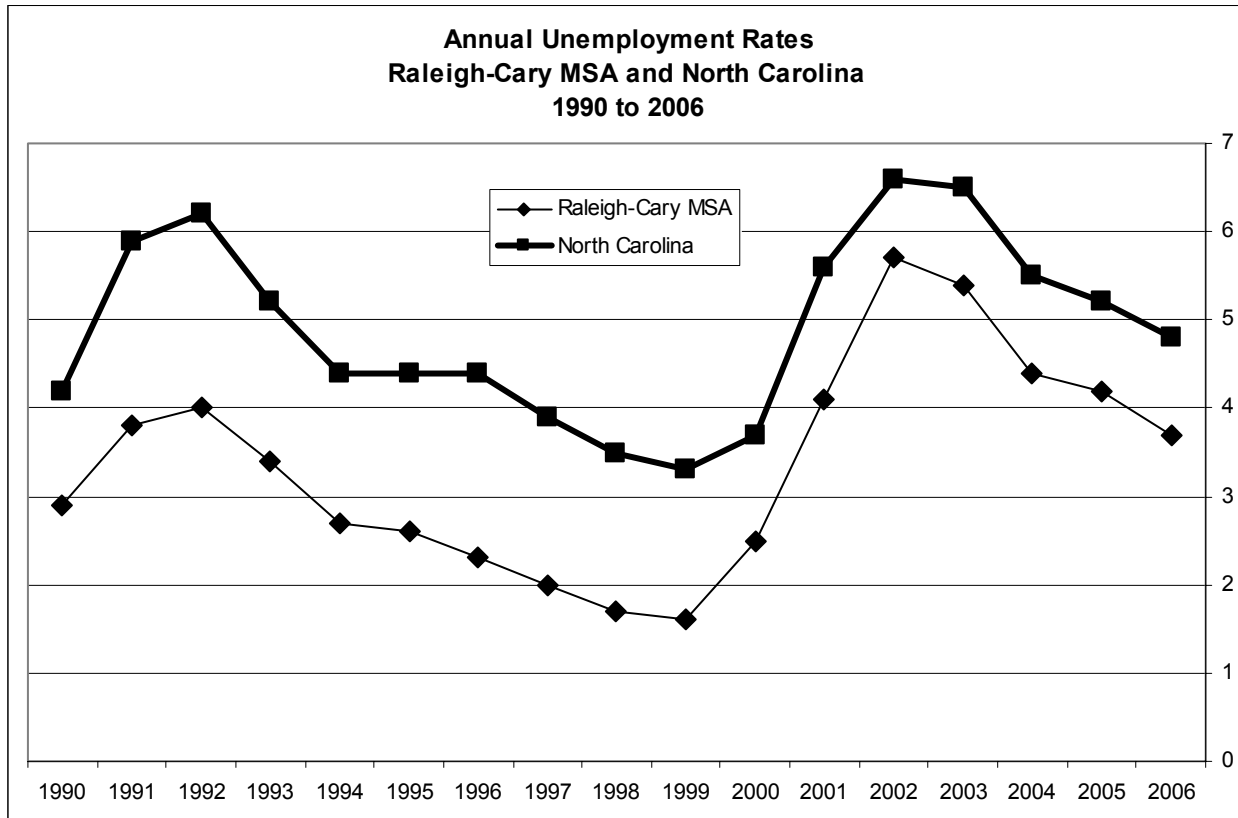
**Substandard Housing Units as a Percentage of the Total, Wake Forest, Wake County and North Carolina, 1970-2000**

In 2000, substandard housing made up a very small percentage of the total housing stock in all three areas being studied. As the three charts on this page show, this was not always the case. In 1970 about one in every five homes in Wake Forest was classified as substandard by the US Census Bureau. A similar proportion was substandard statewide in 1970. Wake County had about 12% of its total housing stock substandard in 1970, dropping to as low as 2.4% in 1990, but then rising again to over 3% in 2000. Given the very large number of new homes being built and annexed into Wake Forest in recent years, it is not surprising that the percentage of substandard homes in the Town has declined to a very low level.

Source: North Carolina State Data Center  
U.S. Census Bureau

## Measures of Local Economic Conditions

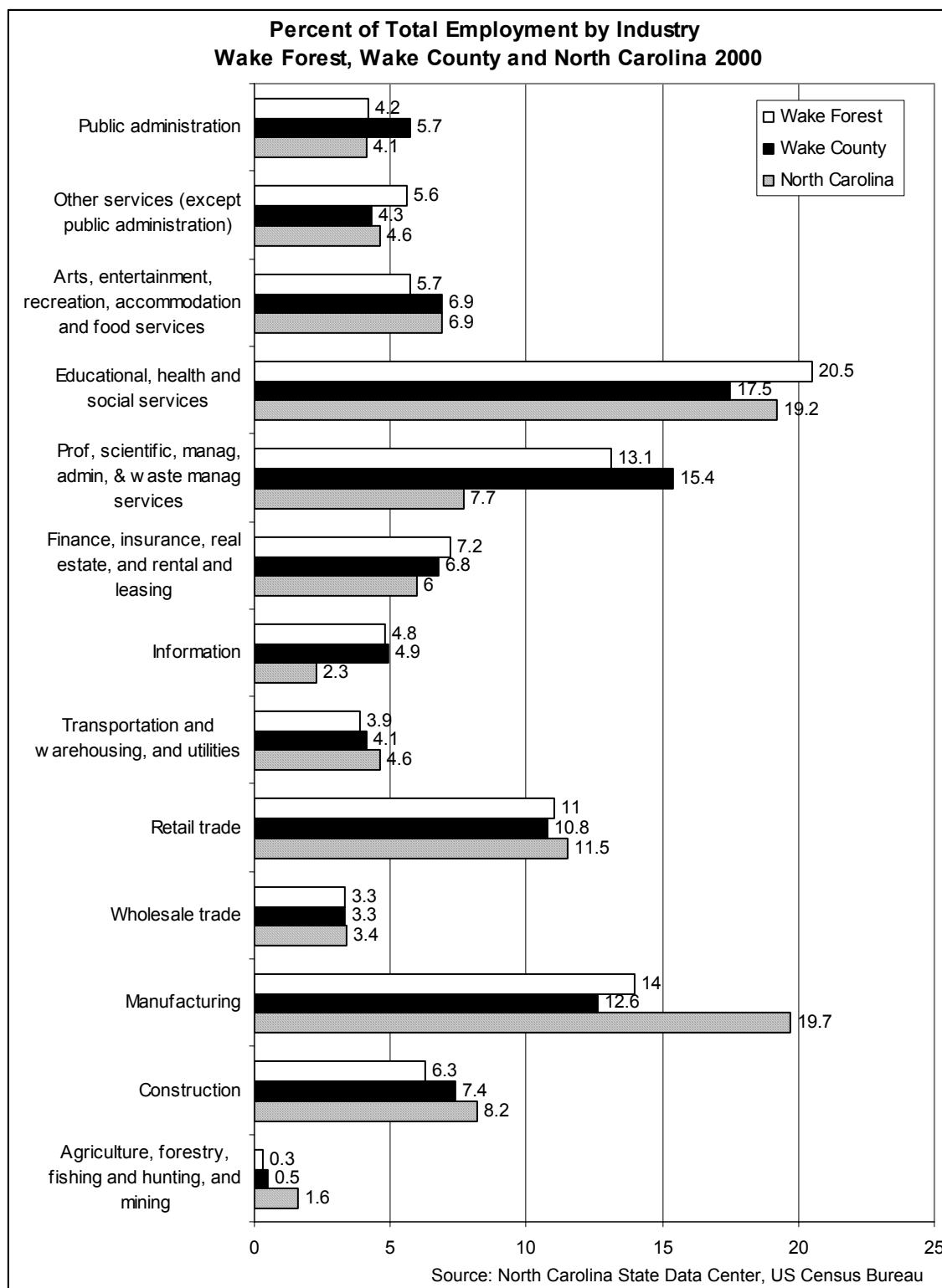
This section compares economic conditions in Wake Forest to those of the County and the State. At the outset, it is worth noting that Wake Forest's economy is heavily influenced by the economic power house that has become the Research Triangle Area of North Carolina. The Research Triangle boasts some of the highest paying, cutting edge jobs anywhere in the State of North Carolina and indeed the nation as a whole. Economic data is generally collected routinely at the county level but not at the municipal level except at the time of each decennial census. Therefore, much of the economic data focusing on Wake Forest comes from the 2000 US Census and preceding decennial censuses.



Source: Employment Security Commission of North Carolina

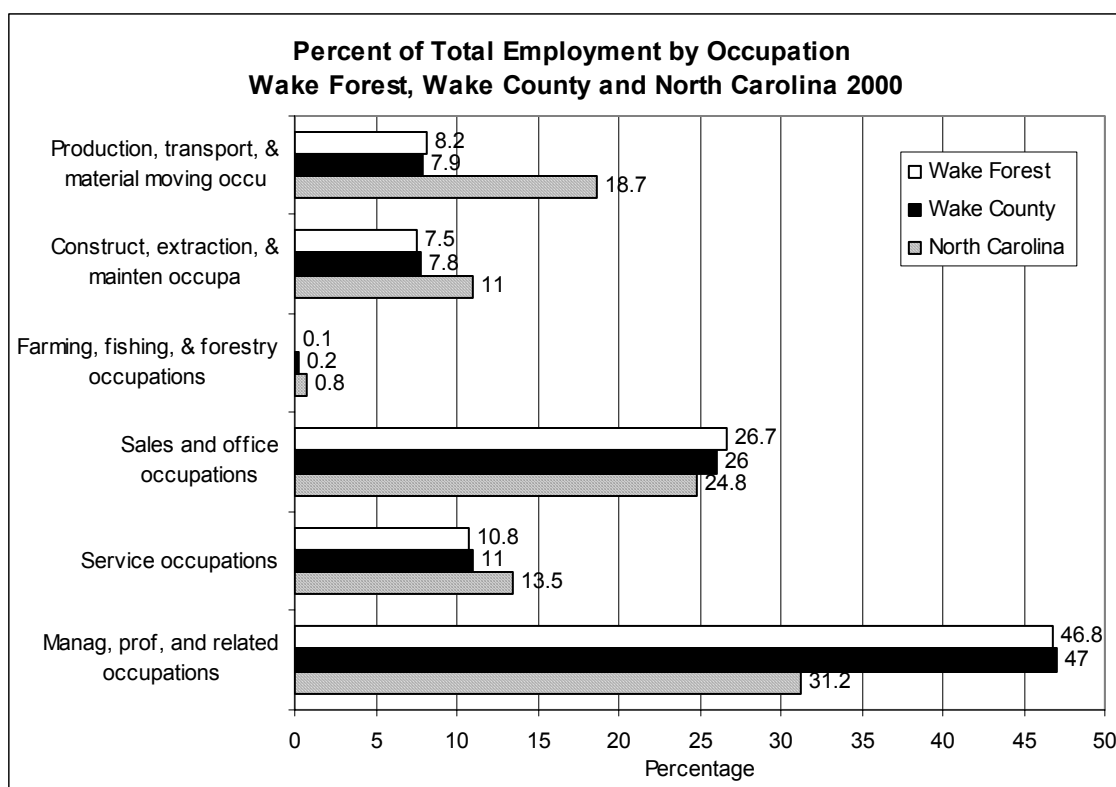
### Annual Unemployment Rates, Raleigh-Cary MSA and North Carolina, 1990 to 2006

The Raleigh-Cary MSA, focused on the Research Triangle Area, has unemployment rates consistently lower than the state as a whole. In fact, the graph above shows that unemployment rates for the local MSA averaged a full two percentage points lower than the state as a whole during the entire decade of the 1990's. In 1998 and 1999, unemployment rates dropped to a remarkably low average of less than 2%. Even during the economic recession of the early 2000's, average unemployment rates for the MSA remained below 6% and soon returned to a level below 4%. The latest figures from the Employment Security Commission, not shown in the chart, point to an average unemployment rate for 2007 continuing at about 3.5%.



#### Percent of Total Employment by Industry, Wake Forest, Wake County and North Carolina 2000

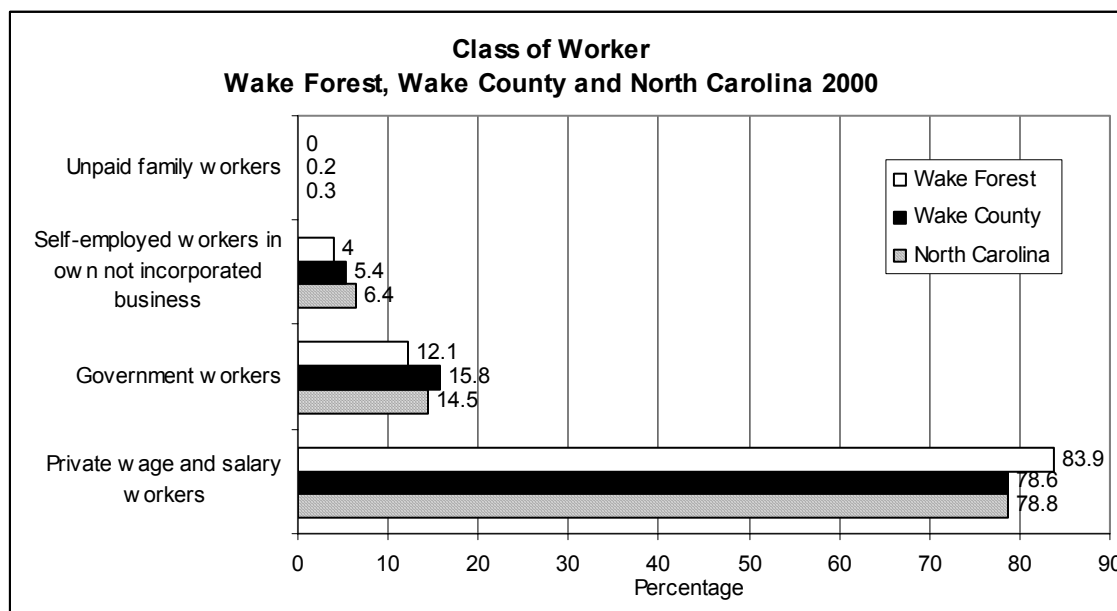
According to the chart above, Wake Forest is better positioned for the technical, professional and information age jobs of the future than the state of North Carolina as a whole. The town, as well as Wake County, are very much alike in terms of the employment patterns of their workers. Compared to the state as a whole, both Wake Forest and Wake County have significantly more workers in *professional, scientific and management*, and *information* industries. Statewide, there are more workers employed in *manufacturing*.



Source: North Carolina State Data Center, U.S. Census Bureau

### Percent of Total Employment by Occupation, Wake Forest, Wake County and North Carolina, 2000

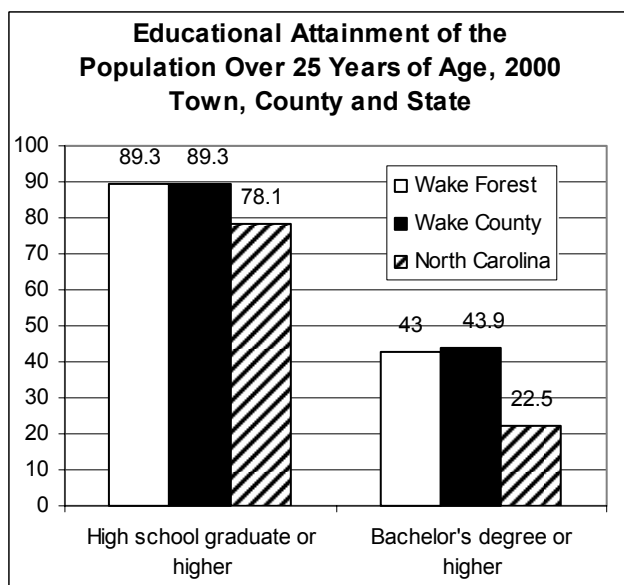
Similar to the preceding chart, the Town of Wake Forest and Wake County have many more workers in *management, professional and related occupations* when compared to the state as a whole. Statewide, there are many more workers in *production, transportation, and material moving occupations*.



Source: North Carolina State Data Center, U.S. Census Bureau

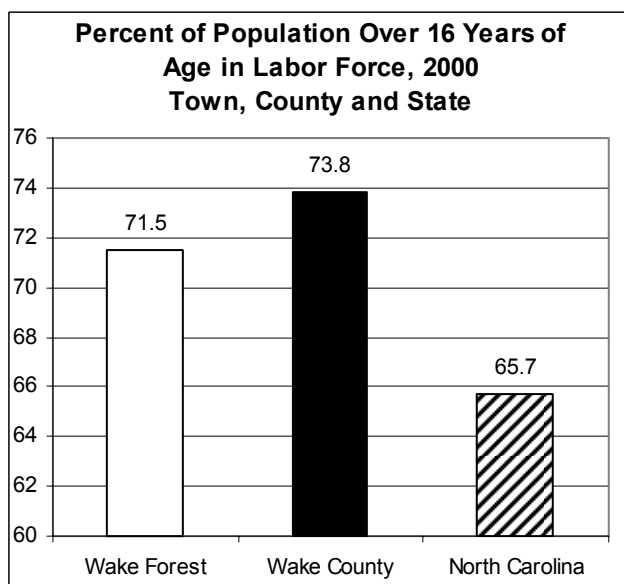
### Class of Worker, Wake Forest, Wake County and North Carolina, 2000

With regard to class of worker, Wake Forest has slightly more *private sector salaried workers* (as a percentage of the total) than either the county or the state and slightly less self-employed persons and government workers.



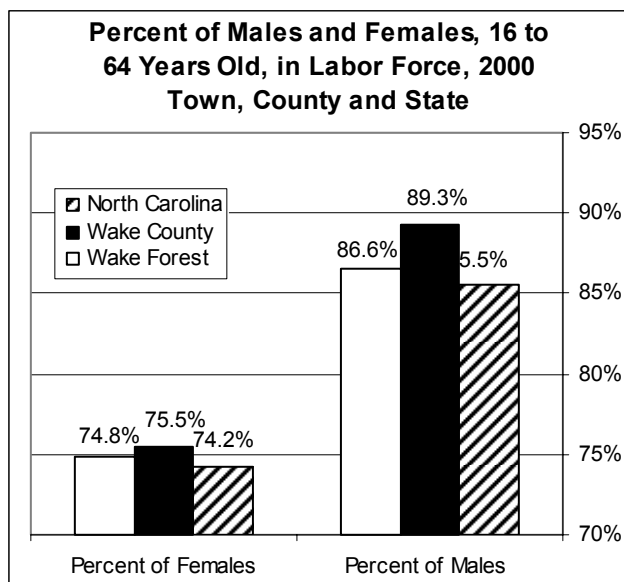
### Educational Attainment of the Population Over 25 Years of Age, 2000, Town, County and State

The healthy state of the local economy is revealed clearly by the high levels of educational attainment of residents in Wake Forest and Wake County. In 2000, nearly 90% of all adults over 25 were high school graduates. In the same year, about 44% of all adults over 25 had a bachelor's degree or higher—twice the state average.



### Percent of the Population Over 16 Years of Age in the Labor Force, 2000, Town, County and State

Excellent job opportunities in the Triangle region are associated with a high percentage (over 70%) of all adults over 16 in the labor force. Compare this with just 66% of adults statewide.

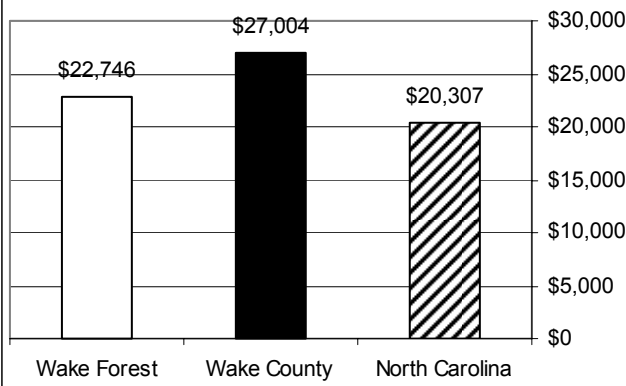


### Percent of Males and Females, 16 to 64 Years of Age in the Labor Force, 2000, Town, County and State

Between 85 and 90% of all working age males in Wake Forest, Wake County and the State were in the labor force in 2000. About 75% of all working age females were in the labor force. (note that the chart above includes all adults over 16 while the chart to the left includes only persons between 16 and 64. Therefore, retirees do not figure into the percentages for the chart to the left.

Source: North Carolina State Data Center, U.S. Census Bureau

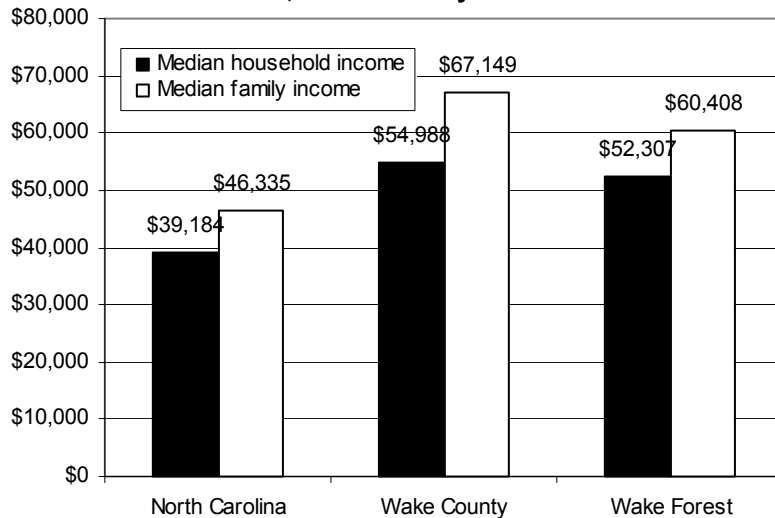
**Per Capita Income in 1999  
North Carolina, Wake County and  
Wake Forest**



#### Per Capita Income, 1999

On a per capita basis, workers from the Town of Wake Forest bring in about \$22,750 per person annually or about \$2,400 more than the statewide average and \$4,250 less than the Wake County average.

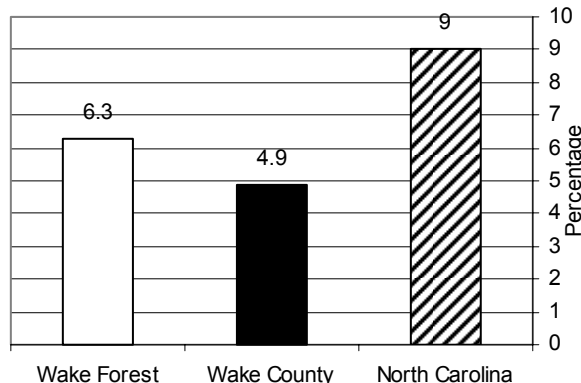
**Median Household Income and Median Family  
Income, 1999  
North Carolina, Wake County and Wake Forest**



#### Median Household Income and Median Family Income, 1999

The household and family incomes of residents of Wake Forest are higher on average, than the state as a whole, but lower than the average for Wake County. The Town shows a median household income very close to the county median, but lagging behind in median family income. This would imply that there are either a greater percentage of *poor families* or a smaller percentage of *rich families* in the town of Wake Forest compared to the county as a whole.

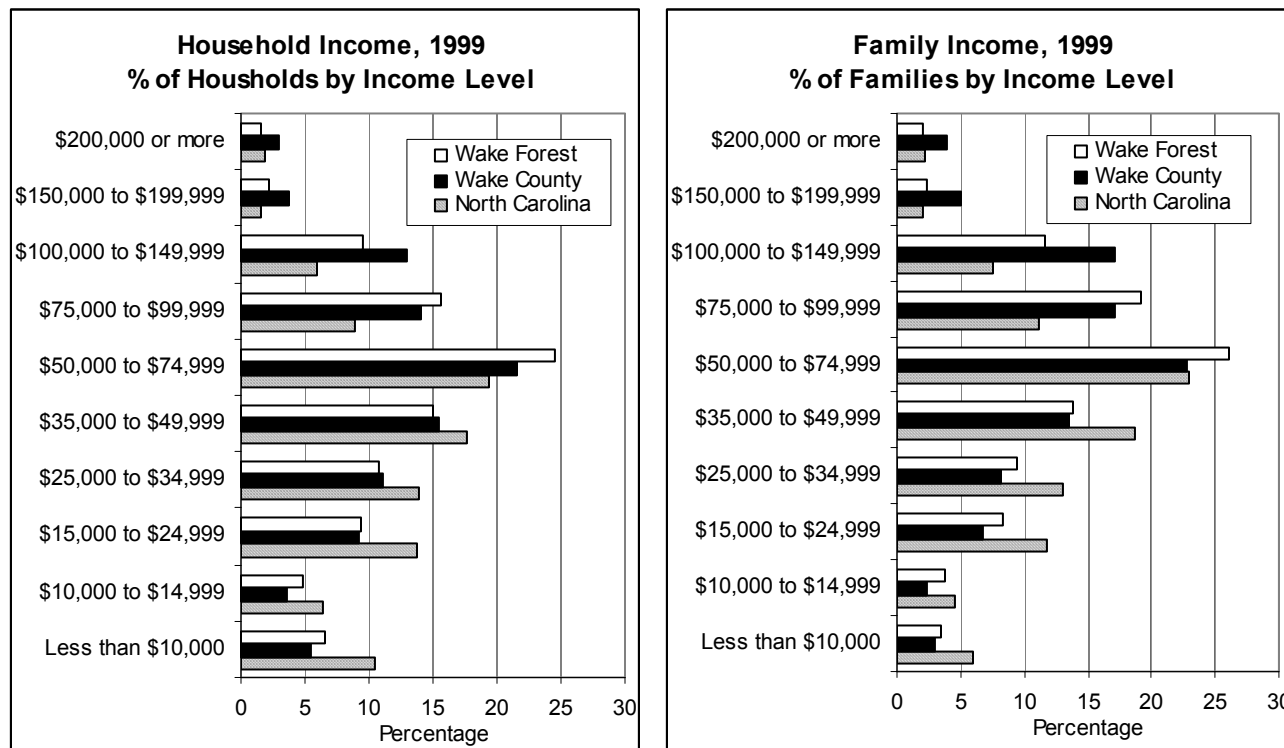
**% Families Below Poverty Level, 1999  
North Carolina, Wake County and  
Wake Forest**



#### Percent of Families Below the Poverty Level, 1999

Poverty levels are determined by official US Census thresholds for family size, and family composition (i.e. number of children). If a family's income falls below the Census-defined threshold for that family size and composition, then the family is determined to be living in poverty. For example, the official income threshold for a family of three with one child under the age of 18 in 1999 was \$13,410. Using such thresholds, Census figures determined that 6.3% of Wake Forest families were living in poverty, compared to about 5% county-wide and 9% statewide.

Source: North Carolina State Data Center, U.S. Census Bureau



Source: North Carolina State Data Center, U.S. Census Bureau

### Household and Family Incomes, 1999, Percent of Households and Families by Income Level

The two charts above provide greater detail as to the nature of income distribution in Wake Forest, Wake County and North Carolina.

#### Incomes in Wake Forest Generally:

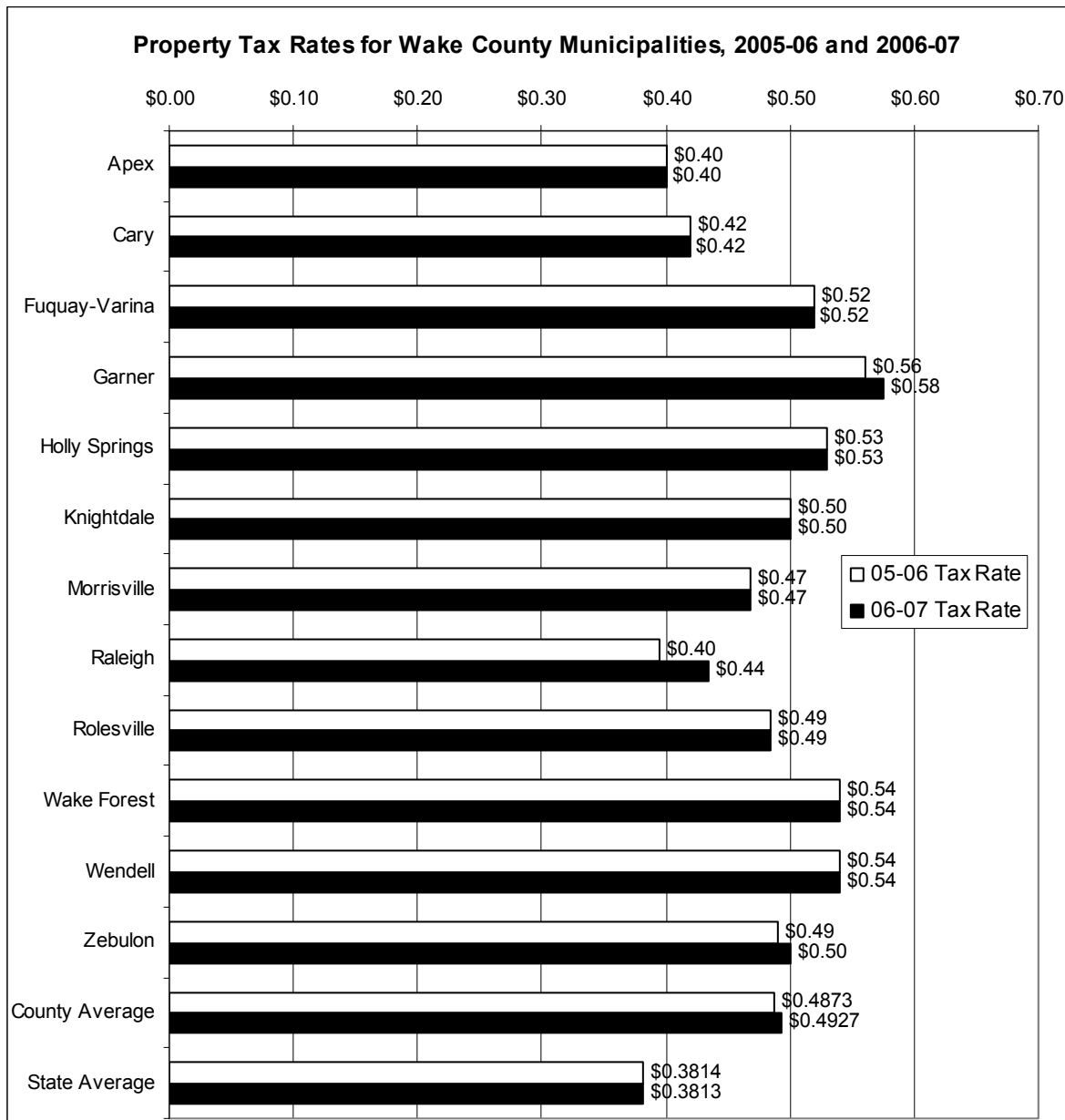
- About one in four families and households in the town of Wake Forest made between \$50,000 and 75,000 in 1999.
- About two out of three families and households in the town of Wake Forest made between \$25,000 and 100,000 in 1999.
- About one in five families and households in the town of Wake Forest made less than \$25,000 in 1999.
- About one in six families and households in the town of Wake Forest made more than \$100,000 in 1999.
- About one in twenty families and households in the town of Wake Forest made more than \$150,000 in 1999.
- About one in fifty families and households in the town of Wake Forest made more than \$200,000 in 1999.

#### Town of Wake Forest Incomes Compared to Wake County Incomes

When compared to Wake County, the town of Wake Forest has a larger percentage of *upper middle income* (\$50,000 to \$99,000) households and families, a slightly larger percentage of *lower income* (less than \$15,000) households and families, and a slightly smaller percentage of *upper income* (\$100,000 and up) households and families.

#### Town of Wake Forest Incomes Compared to North Carolina Incomes

When compared to the state as a whole, Wake Forest has a generally higher percentage of *upper middle income* and *upper income* households and families, and a consistently lower percentage of *lower middle income* and *lower income* households and families.



Source: NC League of Municipalities

### Property Tax Rates for Wake County Municipalities, 2005-06 and 2006-07

The chart above compares recent property tax rates among the twelve municipalities in Wake County. The average tax rate among municipalities county-wide and statewide is also shown, though the state average is a less reliable measure due to variations in the *effective* tax rate from county to county. Observations:

- Municipal property tax rates in Wake County range from a low of \$0.40 per hundred valuation in Apex to a high of \$0.58 in Garner
- When comparing fiscal year 2005-06 to 2006-07, four of the twelve municipalities increased their tax rate, while eight remained unchanged.
- Five of the twelve towns had tax rates over \$0.50 per hundred, including Wake Forest at \$0.54.
- Raleigh had the largest increase from one year to the next, raising the tax rate by 4 cents per hundred.